**Abstract**

Lactic acid bacteria inoculant derived from previously fermented juice (PFJ) of mixed cassava (*Manihot esculenta*) roots and turi (*Sesbania grandiflora*) leaves are significant to improve nutritive qualities of these ingredients. The experiment aimed to evaluate the use of dry powder inoculant derived from PFJ of mixed cassava roots and turi leaves for fish feed ingredients. PFJ was made of mixed cassava roots and turi leaves (7:3), water (1:5), then blended and filtered. Filtrates were added with sucrose (2%), then incubated respectively for 2 (CT2), 4 (CT4), 6 (CT6), 8 (CT8), 10 (CT10), 12 (CT12) days. Inoculant was made of 10 mL PFJ supernatant, 5 g cassava flour, 1 g sucrose; then dried (10°C) for 3 days. Ten percent of each inoculant powder was applied to each pulp, then incubated for 6 days in closed plastic bag at ambient temperature, in complete randomized designs with three replications. The control pulps were negative control (KN), initial level (KA), and cassava powder with sterile aquabidest (PtI) pulps. The results show that pH of CT2, CT4, CT6, CT8, CT10, CT12 pulps were not significantly different (P>0.05), and reduced below 4 with common average of 3.92; and significantly lower than those of control pulps; in contrast, pH control pulps were above 5. Total titrable acidities (TTA) of treatment pulps were significantly (P<0.05) higher than those of control pulps. The common average of TTA of CT6, CT8, CT10, CT12 pulp was 2.03 and that of control pulps was 0.69. TTA of CT2 and CT4 pulp were 1.38 and 1.72 mL 0.1 N NaOH/g respectively. The silage qualities of treatment pulp were better than those of control pulps, with CT4 and CT6 were the best quality. In conclusion, PFJ can be used as dry powder inoculant to make good qualities silage of mixed cassava roots and turi leaves, therefore this silage can be used as fish feed ingredient. Inoculants from PFJ that incubated for 4 dan 6 days may possible more efficient compare to the other inoculants to make good silage.

**Keywords:** LAB inoculant, previously fermented juice, cassava roots, turi leaves